



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

February 9, 2010

Colonel Jeff Ryscavage
District Engineer
U.S. Army Corps of Engineers
Wilmington District
P.O. Box 1890
Wilmington, NC 28402-1890

Attn: Henry M. Wicker, Jr., Project Manager

**Subject: COE Final Environmental Impact Statement (FEIS) for the
Proposed Construction of Regional Wastewater Pumping, Conveyance,
Treatment, & Discharge Facilities to serve the Towns of Apex, Cary,
Holly Springs and Morrisville, as well as the Wake County portion of
Research Triangle Park, NC, CEQ #20090437; ERP #COE-E39077-NC**

Dear Colonel Ryscavage:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA Region 4 has reviewed the above-referenced U.S. Army Corps of Engineers Wilmington District Final Environmental Impact Statement (FEIS) for the proposed construction of regional wastewater pumping, conveyance, treatment, and discharge facilities to serve the Towns of Apex, Cary, Holly Springs and Morrisville, as well as the Wake County portion of Research Triangle Park, North Carolina. We understand that the Towns of Apex, Cary, Holly Springs and Morrisville are working collaboratively on this project. The 4-volume set of the FEIS Report and Appendices, as well as a 4-volume set of the Secondary and Cumulative Impacts Master Mitigation Plan, were all transmitted under cover letter dated December 8, 2009 from the Wilmington District to Mr. Ted Bisterfeld of EPA Region 4's NEPA Program Office in Atlanta, GA. The FEIS has a CEQ Federal register date of December 18, 2009, and a CEQ Comment due date of January 19, 2010. In this response letter, EPA Region 4 will offer its comments based upon our review of the FEIS.

History of the SEPA and NEPA EIS Process

A Public Hearing for North Carolina's State Environmental Policy Act (SEPA) Draft EIS (DEIS) and Draft Section 404 Permit was previously held for this proposed Project on June 15, 2006, and because of the number of comments received on the Draft

Section 404 Permit, Wilmington District determined that the project required a National Environmental Policy Act (NEPA) EIS. The SEPA process was then suspended, and the NEPA process was begun when the Wilmington District issued a Public Notice for the project on March 30, 2007. The Department of the Army Notice of Intent (NOI) to prepare the NEPA EIS appeared in the *Federal Register* on April 9, 2007 (Vol. 72, No. 67), and also in the *News & Observer* on April 15, 2007. A public scoping meeting for the project was subsequently held at the Apex Town Hall on April 19, 2007, with approximately 12 people reportedly attending this meeting. The Wilmington District accepted written comments until April 30, 2007.

A DEIS, which was prepared to also meet the requirements of North Carolina's SEPA, was then developed and transmitted under cover letter (dated March 4, 2009) from the Wilmington District to Ms. Pearl Young of EPA's Office of Federal Activities (OFA) in Washington, DC. EPA Region 4 reviewed and then provided comments on the DEIS to Wilmington District on April 30, 2009. Two informal workshops were also held on March 31, 2009 and April 14, 2009 to provide the public with an opportunity to ask questions about the project during the public comment period. A public hearing was also held on April 14, 2009 to formally receive comment on the DEIS. Written comments were accepted until April 28, 2009. All public comments received during the comment period and responses to these comments are included in FEIS Appendix A. EPA has considered our previous DEIS comments and Wilmington District's responses as part of our review of the FEIS.

Overview of EPA's Review of this FEIS

Although EPA still has some remaining Environmental Justice (EJ) concerns as noted in this letter, this FEIS generally comprehensively documents and discloses the impacts of the proposed Project, reasonable action alternatives, and the No Action Alternative. This proposed Project features wastewater conveyance, wastewater treatment, and effluent conveyance and discharge for the North Carolina communities of Cary, Apex, and Morrisville, and effluent conveyance and discharge for the Town of Holly Springs. These communities are all located in the western portions of Wake County, North Carolina, and are collectively known as the Western Wake Partners. This FEIS was appropriately prepared in accordance with NEPA regulations promulgated by the Council on Environmental Quality, United States Army Corps of Engineers publication ER-200-2-2, and the requirements of the North Carolina (State) Environmental Policy Act (SEPA). This FEIS has also been developed through the Corps of Engineers' project delivery team (PDT) process that included federal, state, and local agencies and the public. This PDT process appropriately involved inviting comments on the DEIS prior to issuance of the FEIS, and members of the public and other stakeholders were encouraged to review and make comments. To avoid having potential conflicts between a SEPA EIS and a separate NEPA EIS, Wilmington District, NCDENR, and the Partners have reasonably decided to develop this FEIS to meet both NEPA and SEPA requirements.

The Corps of Engineers will reportedly utilize the FEIS for the proposed Project to support decision making associated with issuance of a Clean Water Act Section 404 permit for dredge and fill activities within waters of the U.S. by the USACE. In addition, it is our understanding that agencies within the North Carolina Department of Environment and Natural Resources (NCDENR) will use the FEIS to meet the requirements of SEPA prior to the issuance of state permits and approvals, including a National Pollutant Discharge Elimination System (NPDES) permit for a discharge to surface waters. Based upon the findings reported in the FEIS, it is our understanding that the North Carolina Division of Water Quality (NCDWQ) may issue an NPDES permit to the Town of Cary to discharge treated effluent to the Cape Fear River for wastewater generated within the Towns of Apex, Cary, and Morrisville. Based upon the findings reported in the FEIS, it is also our understanding that NCDWQ may also issue an NPDES permit for the Town of Holly Springs to expand its permitted treatment capacity and relocate its discharge from Utley Creek to the Cape Fear River.

As part of this collaborative effort, the Partners are also addressing both a State of North Carolina regulatory mandate and technical recommendations. The Partners are working collaboratively to collect, treat, and discharge wastewater from their communities and the Wake County portion of Research Triangle Park (RTP South). The regulatory mandate that has been issued by the North Carolina Environmental Management Commission (NCEMC) addresses an interbasin transfer (IBT) by the Towns of Apex, Cary, and Morrisville. This mandate requires the towns to return water to the Haw or Cape Fear River Basin after 2010 and includes a maximum day transfer of 24 mgd. The Partners are currently meeting the conditions of the IBT through an Interlocal Agreement with Durham County in which they transfer a portion of the wastewater that will eventually be treated by the proposed WRF to the Durham County Triangle WWTP which discharges to Northeast Creek in the Haw River subbasin. The Interlocal Agreement allows for this transfer until June 30, 2014 at which time, a new WRF will be required to meet the conditions of the IBT. In addition, the NCDENR Division of Water Quality (NCDWQ) “strongly” recommended the removal of Holly Springs’ wastewater discharge (NPDES permit number NC0063096) from Utley Creek.

Reported Purpose and Need of the Proposed Action

EPA concurs with the FEIS’ reported purpose and need of the proposed action “to provide the foundation for regional wastewater service capacity to meet existing and forecasted demand in the project service area” for a projected combined population in 2030 of over 432,000 (combined populations of the Towns of Apex, Cary, Morrisville, and Holly Springs). The regional wastewater service “will be consistent with the NCEMC mandate in the IBT certificate to return water to the Haw or Cape Fear River Basin and the Town of Holly Springs’ commitment to relocate its NPDES discharge from Utley Creek.” The stated need for the proposed action is “to provide wastewater treatment capacity for the projected population growth and the associated increase in land development in western Wake County.” This FEIS has been appropriately developed in response to a required maximum monthly wastewater capacity for the 4 towns of approximately 62 million gallons per day (mgd), including 24 mgd of treated wastewater

effluent to be discharged at several existing NPDES permitted outfalls, and approximately 38 mgd pumped, conveyed, and discharged by the proposed facilities to a new outfall location.

Proposed Project Infrastructure Elements

EPA concurs with the proposed action's "two phase project" approach involving development of a regional wastewater system that includes the construction of a single water reclamation facility (WRF) to serve the Towns of Apex, Cary, and Morrisville and RTP South. The proposed WRF site has been selected (north of U.S. Highway 1 and south of Old U.S. Highway 1 between New Hill-Holleman and Shearon Harris Roads), and has a proposed capacity of 30 mgd with a discharge to the Cape Fear River downstream of Buckhorn Dam. The Town of Holly Springs' Utley Creek Wastewater Treatment Plant (WWTP) has already been approved to expand to 6 mgd and will share the 38-mgd outfall to the Cape Fear River.

The FEIS appropriately lists the following required infrastructure for the proposed Project:

- West Cary Pump Station expansion
- West Cary Force Main - West Cary Pump Station to West Reedy Branch Gravity Sewer
- West Reedy Branch Gravity Sewer - West Cary Force Main to Beaver Creek Pump Station
- Beaver Creek Pump Station
- Beaver Creek Force Main - Beaver Creek Pump Station to Western Wake WRF
- Western Wake WRF
- Effluent Pump Station located on WRF site, Force Main, and Outfall
- Apex Beaver Creek Gravity Sewer
- Cary Green Level Force Main and Gravity Sewer
- Cary Indian Creek Force Main and Gravity Sewer
- Holly Springs Effluent Force Main - Utley Creek WWTP to the Western Wake WRF Effluent Pump Station
- Water and electric utilities to serve the WRF site

EPA's Review of Project Alternatives

The FEIS appropriately features an alternatives analysis that was performed as part of the PDT process, including an evaluation of wastewater management options, wastewater discharge options, WRF site alternatives, conveyance alternatives, and wastewater outfall options. The FEIS notes that the Partners also appropriately evaluated the following wastewater management options that were then subsequently reviewed by the entire PDT:

- No Action Alternative - the facilities already in place would continue to operate as currently permitted (NEPA requires that the impacts of the No Action Alternative be evaluated).
- Independent systems – there would be no “collaboration” for wastewater collection and treatment and therefore it would consist of two new WRFs to serve the western Wake service area.
- Purchase of capacity from other systems – the City of Durham, Durham County or Harnett County would provide treatment capacity.
- Optimum operation of existing systems – the optimum operation of existing plants could result in a rerating of them so they could actually discharge higher flows than permitted.
- Regional land application system – the construction of secondary-type treatment facilities followed by land application to a new dedicated land application site.
- Regional water reuse system – the disposal of the entire amount of the reclaimed water through a regional water reuse system.
- Regional wastewater system - one new WRF would serve the communities of Apex, Cary, and Morrisville, while Holly Springs would continue to operate its WWTP and share an outfall line with other Partners.

The FEIS notes that “from this list, the regional wastewater system alternative was selected. All of the other alternatives were determined to not meet the project purpose and need or would result in much higher environmental impacts than the proposed regional wastewater system. These other alternative wastewater management options were thus eliminated from further detailed study.”

EPA’s Review of Discharge Alternatives

EPA notes that several discharge alternatives have been appropriately considered in the FEIS:

- a discharge directly to Jordan Lake
- a discharge to the Cape Fear River upstream of Buckhorn Dam
- a discharge to the Cape Fear River below Buckhorn Dam
- a discharge into Harris Lake

EPA Region 4 will not support additional discharges into Jordan Lake and the Cape Fear River upstream of Buckhorn Dam while these waterbodies are still classified as “impaired” and are included on the state's current 303(d) list (approved by EPA) for not meeting the state’s EPA-approved Water Quality Standards for *chlorophyll a*. These waters have documented exceedances of the *chlorophyll a* standard. EPA fully supports North Carolina’s nutrients management strategy and its associated controls on point source and nonpoint source sources. The strategy is designed to prevent further nutrient enrichment and to preclude subsequent impairment of the state’s rivers and streams.

As mentioned previously in our comments on the DEIS (April 30, 2009), EPA is currently working with NCDWQ to determine region specific, quantitative chlorophyll a

criteria, which may require significant modifications to the current chlorophyll *a* criteria language. Through EPA grants, the state is currently conducting a scientific evaluation and review in order to determine the most effective methodology available with which to implement a revised *chlorophyll a* water quality standard for the control of nutrients. Anticipated outcomes of this review may lead to the incorporation of seasonal growing averages, instantaneous maximums, and frequency and distribution response criteria incorporated into the new, revised *chlorophyll a* standard. Based upon the detailed evaluation and analysis of the relationship between TN, TP, *chlorophyll a*, and trophic status of the water, two categories of quantitative *chlorophyll a* parameters will be proposed for each of the three regions in North Carolina.

EPA thus supports the conclusion in the FEIS that discharge alternatives into nutrient impaired waters should be “eliminated from further discussion.” Harris Lake is not on the 303(d) impaired waters list, but NCDWQ reported that it would not permit a new discharge to the lake without detailed water quality modeling. This option is currently being evaluated using a detailed modeling analysis, but to date NCDWQ has reportedly not determined whether a discharge to Harris Lake is feasible (through the issuance of “speculative permit limits”). If this alternative was implemented, the Town of Holly Springs' preference would reportedly be to have a separate discharge to the lake or elsewhere in its watershed since this would minimize the length of the effluent pipeline (and its associated impacts). To date, NCDWQ has provided speculative permit limits for a surface water discharge only for a discharge to Cape Fear River downstream of Buckhorn Dam, and this is currently the proposed discharge location for the proposed WRF and the Town of Holly Springs.

EPA's Review of WRF Siting Alternatives

EPA concurs with the selection of a large number of potential WRF site locations (30) for initial evaluation for this project. It is our understanding that 17 of these candidate sites were quickly eliminated “once the wastewater management option and discharge location were identified; they were originally included as a potential WRF location because they were considered appropriate for a different management option.” Based upon an “independent analysis” the Partners then identified the proposed Project WRF site (Site 14) because it reportedly meets the following criteria used by the Wilmington District (and the PDT) to select alternatives to the proposed Project WRF site. EPA concurs with all other criteria used to select alternatives for the proposed Project WRF site:

- Number of dwelling units and unique property owners on the site
- Site access - distance from a US highway
- Number of feet of pipeline required for site
- Presence of ponds, wetlands, and/or streams on the site
- Presence of significant natural heritage areas, game-lands, public lands, federal land, and/or state-owned land on site
- Number of threatened and endangered species within 0.5 mile of site
- Population within 0.5 mile of site

- Number of hospitals, churches, daycare centers, schools, and retirement centers within 0.5 mile of site
- Historic resources within 0.5 mile of site

Based on the above criteria, the Wilmington District and the PDT then selected three sites as “reasonable alternatives” for the proposed Project WRF site (WRF Site 14) and then evaluated these further as documented in the FEIS:

- Site 19 - This site is south of U.S. Highway 1, east of New Hill Holleman Road, and just south of Friendship Road, and is known as the Project Alternate A site.
- Site 21/23 - This site is south of U.S. Highway 1, east of New Hill Holleman Road, and just south of Friendship Road, and is known as the Project Alternate B site.
- Site 30 - This site is located between Shearon Harris and Bonsal Roads, and is known as the Project Alternate C site.

The FEIS appropriately documents the following issues concerning these 3 sites:

- These same 3 sites would be reasonable alternatives if a discharge to Harris Lake is feasible.
- The location of the West Cary Pump Station is identical for all 3 WRF site alternatives. This pump station currently exists and is being expanded as part of this project.
- The location of the Beaver Creek Pump Station is also identical for all 3 WRF site alternatives. It was selected based upon environmental factors (streams and wetlands), social factors (number of property owners/relocations), and cost.
- Similarly, the transmission lines for each alternative are similar. The transmission lines were selected to minimize impacts to the environment (wetlands and streams), property owners and residents, the American Tobacco Trail, federal land, and the New Hill Historic District, as well as to minimize conflicts with existing gas lines and power lines.
- For the Cape Fear River outfall, a bank discharge structure and a diffuser were evaluated. “The bank discharge resulted in fewer impacts to recreation and habitat, and resulted in NCDWQ-acceptable dilution. Thus, the diffuser was eliminated from further detailed analysis, and the bank discharge was selected for all project alternatives.”

Proposed Action Versus 3 Reasonable Action Alternatives and No Action

Based on the screening process summarized in the FEIS, the proposed action (proposed Project) and 3 reasonable action alternatives to the proposed action were appropriately subjected to “further detailed analysis.” All 3 are regional wastewater management options that include a WRF that would treat wastewater from Apex, Cary, Morrisville, and RTP South, with an outfall line to the Cape Fear River below Buckhorn Dam that would also be sized to accommodate flow from the Holly Springs WWTP. The alternatives all include the same location for the Beaver Creek Pump Station, and large

portions of the transmission line alignments are the same. Each option appropriately considered includes a different WRF site and piping around each plant site. The No Action Alternative appropriately assumed that “there is no new regional wastewater system and that the area to be served by the proposed Project would continue to be developed primarily as low density residential development served by on-site water and wastewater systems.” EPA concurs with the decision that the No Action Alternative should be rejected because it does not meet the project purpose and need as it would not allow Cary, Apex, and Morrisville to meet their mandated IBT certificate and it would not provide the necessary capacity for future wastewater treatment demands.

Environmental, Social, and Economic Consequences

The potential for and degree of environmental, social, and economic consequences associated with the proposed action (proposed Project) and three reasonable action alternatives to the proposed action are generally adequately described in the FEIS. The specific resources evaluated are:

- Water resources including surface water, floodplains, wetlands, and groundwater
- Shellfish or fish and their habitats
- Wildlife and natural vegetation
- Forest resources
- Land use
- Public lands and scenic, recreational, and state natural lands
- Geology, mineral resources, soils, and prime farmland
- Air quality
- Noise levels
- Toxic substances and hazardous substances
- Areas of archaeological or historic value
- Socioeconomic factors
- Environmental justice and protection of children and sensitive groups
- Aesthetics
- Transportation
- Energy needs
- Safety
- Shore accretion and erosion

Evaluation Process of Project Impacts

As appropriately documented in the FEIS, 5 types of impacts were evaluated. These 5 types of impacts are characterized as negligible, moderate, major, or beneficial. Negligible impacts are not detectable or are slight; moderate impacts are readily noticeable; major impacts are clearly noticeable and severely adverse or exceptionally beneficial. The No Action Alternative means no new infrastructure is planned, and “therefore there are no direct impacts on the natural or human environment.” The FEIS

appropriately notes, though, that the No Action Alternative would still result in growth in the area, and impacts are described below. The 5 types of impacts evaluated are:

Temporary impact: “There is no specific time period associated with this term, and is determined on a case-by-case basis. In general, a temporary impact is an impact associated with a particular activity for a finite period. For most temporary impacts, this is defined as the period during construction.”

Permanent impact: “A permanent impact is a persistent or chronic impact.

Direct impact: “A direct impact is caused by and occurs at or near the location of the action. A direct impact can be adverse or beneficial. Section 4 describes direct impacts. Direct impacts are defined at 40 CFR part 1508.8.”

Indirect (secondary) impact: “An indirect (or secondary) impact is an impact that is caused by the action and is further removed in time or distance. Indirect impacts may include growth inducing effects. Indirect impacts are described in Section 5. Indirect impacts are defined at 40 CFR part 1508.8.”

Cumulative impact: “A cumulative impact is an impact that results from the incremental impact of a given action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts are described in Section 5. Cumulative impacts are defined at 40 CFR part 1508.7.”

Summary of Impacts from Project Alternatives

The FEIS appropriately concludes that “none of the project alternatives evaluated in detail has any major impacts on the resources evaluated. Each alternative has some impacts that were moderate. Overall, the direct impacts from each project alternative are similar.” The temporary and permanent direct impacts included all aspects of the project “including the pump stations, transmission lines, WRF, and outfall. The majority of the transmission line infrastructure is identical for each project alternative; the main difference between the various alternatives is the WRF site itself and the transmission lines in close proximity to an individual WRF site. The impacts to streams, wetlands, and floodplains at each WRF site are similar since the layouts were designed to avoid and minimize impacts to these resources. Bottomless culverts are planned to be used for any road crossings into the alternative WRF sites. The site designs also avoid other important environmental resources such as unique habitat areas where practicable.”

The main differences between the different project alternatives are summarized in the FEIS Executive Summary as follows:

- **Perennial Stream Impacts** – “Project Alternate A (WRF Site 19) has over 25 percent more permanent impacts to perennial streams than the proposed Project (WRF Site 14); the other project alternatives are similar to the proposed Project. The perennial stream impacts were estimated from wetlands delineations on the

WRF sites and a portion of the transmission line routes. Where wetland delineation data were not available for transmission lines, they were estimated from publicly available CIS data.”

- Food and Fiber Production – “There is active agriculture that would be lost on WRF Site 30; there is no active agriculture on any of the other WRF sites.”
- Prime farmland – “Project Alternate B (WRF Site 21/23) has over 25 percent more permanent impacts to prime farmland than the proposed Project (WRF Site 14). Prime farmland impacts are based on soil type rather than the location of existing farms and the land use and were estimated from publicly available GIS data.”
- “The impacts listed are the maximum expected and are likely to be reduced during final design.”
- “The No Action Alternative would have no direct impacts to any of the resources.”
- “The proposed Project and the three action alternatives have identical secondary and cumulative impacts. This is because each of the action alternatives supports the same land use plan, and the same ordinances will govern development under each of the alternatives. In general, development would be similar among all action alternatives. The No Action Alternative would result in lower density growth than the three action alternatives. For many resources, this results in lower impacts. For others, there can be a greater risk. For example, under the No Action Alternative, more septic systems would be permitted, and this would result in a greater risk to groundwater resources.”

Summary of Environmental Justice (EJ) Issues Addressed in the FEIS

The FEIS appropriately examines the effect of the location of Western Wake Regional Wastewater Management Facilities and its associated transport facilities on minority and/or low-income populations. The executive order 12898 “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (February 11, 1994) and its accompanying memorandum primary purpose is to ensure that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations ...”

To meet these goals, the Executive Order specified that each agency develop an agency-wide environmental justice strategy. EPA defines EJ as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.”

The Presidential Memorandum that accompanied the Executive Order calls for a variety of actions. Four specific actions are directed at NEPA-related activities, including:

- Each federal agency must analyze environmental effects, including human health, economic, and social effects, of federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA.
- Mitigation measures outlined or analyzed in EAs, EISs, or Records of Decision (RODs), whenever feasible, should address significant and adverse environmental effects of proposed federal actions on minority communities and low income communities.
- Each federal agency must provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving accessibility of public meetings, official documents, and notices to affected communities.
- In reviewing other agencies' proposed actions under Section 309 of the Clean Air Act, EPA must ensure that the agencies have fully analyzed environmental effects on minority communities and low-income communities. including human health, social, and economic effects.

It is EPA's understanding that the preferred site was purchased by the Partners prior to completion of the environmental review process. However, we agree that subsequent to that period the Corps of Engineers provided ongoing opportunities for public participation through the NEPA process and met with EPA and stakeholders to request assistance with their EJ analysis and community involvement strategy. EPA provided the Corps of Engineers with EJ guidance documents and participated in a public meeting with the affected community. The public outreach included a "broad purpose of this multi-layered communications effort to facilitate building and maintaining mutually beneficial and trusting relationships between the WWRF and its staff with those living and working near the site (Neighbors)." The Corps of Engineers' outreach reportedly included home visits, neighborhood meetings, a design charrette open to the public, a project hotline, a web site, signage, and ongoing training. The FEIS reports the following steps were used to complete the process of addressing EJ for the Western Wake Regional Wastewater Management Facilities (WWMF) project.

- Step 1: Determined whether the potentially affected area includes minority and/or low-income populations.
- Step 2: Identified potential beneficial and adverse changes to existing conditions that may result from the proposed and alternate WRF sites, pump stations, and pipelines.

- Step 3: Determined whether any significant and adverse impacts are likely to fall disproportionately on minority and/or low-income populations.
- Step 4: Developed mitigation measures because there are adverse impacts likely to fall disproportionately on minority and/or low-income populations.

According to the FEIS, demographic information for the project service area was obtained from the U.S. Bureau of Census and North Carolina State Data Center. The environmental justice analysis used 2000 census data to identify minority and low-income populations within 0.5 miles of the proposed facilities and compared that population to a broader service area. The census tracts included in the Western Wake Regional Wastewater Management Facilities service area are shown on Figure G-1. As shown on Figure G-1, the Western Wake WRF, Beaver Creek Pump Station, and West Cary Pump Station are found within Census Tract 534.03. The Upper Crabtree Pump Station is located within Census Tract 536.

The two census tracts, block group 1 (534.03 and 207) with the highest percentage of low income populations that may be affected by the proposed Project and alternatives are reportedly less than 7 percent low-income. This level is twice as high as the Western Wake WRF Service area (approximately 3 percent), but lower than both the Wake County and Chatham County average (approximately 8 percent and 10 percent, respectively). Therefore, the best available data indicates that low-income pockets exist relative to the Waste Water WRF Service area.

During the door-to-door outreach conducted around the proposed and alternative WRF sites since 2006, it was observed “that there are primarily two clusters of potential EJ populations that represent minority communities in the area around the sites and along the proposed pipelines.” These two clusters fall within the two census blocks that have the highest minority populations and percentages (Census Blocks 1053 and 1013) near the four WRF sites.

- EJ Group 1 is located in Census Block 1053 along New Hill-Holleman Road between Old Highway 1 and U.S. Highway 1. According to the 2000 census, the total population of Census Block 1053 was 106 with 92 minority persons or 87 percent.
- EJ Group 2 is located along James Rest Home Road south of U.S. Highway 1. According to the 2000 census, the total population of Census Block 1013 was 71 with 67 minority persons or 94 percent. The EJ Group 2 cluster also contains a large nursing home, which contributes to the EJ population. “Many of the families in these two clusters have owned properties in the area for generations.”

During the outreach (conducted door to door) between 2006 and 2008, it was reported that “several structures in these areas have been vacated due to death or severe property deterioration. Additionally, due to the dependency on wells for water supply and septic tanks/leach fields for wastewater disposal, many households appear to be

unable to make needed improvements to these structures because their wastewater systems are substandard. Consequently, the infrastructure of some occupied structures continues to deteriorate. All of the homes in this area rely on well water and septic systems.”

EPA concurs with the Corps of Engineers’ EJ Analysis that there are several types of potential adverse impacts that a water reclamation facility (WRF) and associated pump stations and pipelines “could have on an affected community if certain siting, design, and operational requirements are not implemented.” The potential primary direct, adverse impacts include the following.

- Visual/aesthetic impacts
- Noise
- Light-spill
- Odor
- Traffic
- Property devaluation
- Surface water and groundwater contamination

EPA concurs with the FEIS that “the community in the vicinity of the project facilities could be adversely affected by property devaluation due to the project.” As part of the Environmental Justice Analysis for this FEIS, it is our understanding that Wake County Revenue Department property data was examined to determine if the Partners’ other WRFs and wastewater treatment plants (WWTP) in Wake County have impacted nearby property values. The analysis was reportedly conducted around the following four facilities (approximate year constructed in parentheses): North Cary WRF (1984), South Cary WRF (1988), Utley Creek WWTP (1990), and Middle Creek WWTP (1986). Also, the number of residential properties developed prior to and after construction of the water reclamation and wastewater treatment facilities was identified to determine if the presence of the facilities had impacted residential growth. The Environmental Justice Analysis made the following observations:

- “The rate of residential development within 0.5 mile of the facilities does not appear to have been impacted, based on comparison to the rate of residential development in the southwest quadrant of Wake County. Around the North Cary, South Cary, and Utley Creek facilities, residential development increased significantly in the years since the facilities were built. The rates of development around these facilities have exceeded the rates of development in southwest Wake County. No development has occurred within 0.5 mile of the Middle Creek facility since it was built.”
- “The homes and land that have been developed around the North Cary WRF and South Cary WRF have an average assessed value above that of the average assessed value in southwest Wake County. Subdivisions built around these two facilities are composed of larger and higher-priced homes than are typical in southwest Wake County.”

- “The homes and land that have been developed around the Utley Creek WWTP have an average assessed value below that of the average assessed value in southwest Wake County. Subdivisions built around this facility are composed of smaller and lower-priced homes than are typical in southwest Wake County.”
- The EJ analysis then concludes that “from analysis of Wake County Revenue Department data, there does not appear to be evidence to suggest that water reclamation and wastewater treatment facilities in southwestern Wake County have negatively impacted residential growth or property values. This analysis is based on existing facilities but does not necessarily predict growth or values of properties around the Western Wake WRF.” However, the analysis indicates that the land value may increase, resulting in a potential increase in property taxes.

EPA’s Comments on the FEIS

The FEIS appropriately responds to and generally incorporates EPA’s 41 comments that we made after our review of the DEIS (EPA’s DEIS comments are dated April 30, 2009). Our 41 comments and the responses are summarized in the FEIS in both tabular and narrative form in the Appendices. The following are the only remaining issues that we identified for which EPA has concerns and/or comments.

➤ The Project is proposed to discharge to the Cape Fear River downstream of Buckhorn Dam. Since the DEIS was issued, NCDWR has reportedly confirmed that any proposed discharge to Harris Lake will require a new or modified IBT certificate. The FEIS reports that the Town of Holly Springs is still apparently reviewing the option to build a discharge to Harris Lake. The draft 2008 303(d) List has been removed from the State of North Carolina’s website, and the current EPA-approved list is from the state’s 2006 cycle. EPA previously recommended that the Corps of Engineers consult with the state listing officials to ensure that there are no plans to list Harris Lake in the 2010 listing cycle. In an e-mail response on August 27, 2009 to the Corps of Engineers, NCDWQ reportedly indicated that “they see no evidence of impairment in Harris Lake and have no plan to include it on the 2010 303(d) list.” EPA recommends that any future Project-related discharges to Harris Lake, which is currently meeting state water quality standards, will require the amending of this FEIS with a supporting water quality modeling analysis.

➤ Regarding the Cape Fear River outfall bank discharge, EPA previously recommended that the Corps of Engineers verify that if a bank discharge structure is constructed, the discharge velocities should not cause or contribute to scour or erosion problems. The FEIS states that the outfall would be stabilized and constructed in accordance with USACE and NCDWQ practices to minimize these impacts. EPA recommends that any constructed system be evaluated by monitoring for increased turbidity downstream of the outfall.

➤ EPA previously commented that the two census tracts, block group 1 (534.03 and 207) with the highest percentage of low income populations that may be affected by the proposed Project and alternatives, are reportedly less than 7 percent low-income. This level is twice as high as the Western Wake Regional WRF Service area (approximately 3 percent), but lower than both the Wake County and Chatham County average (approximately 8 percent and 10 percent, respectively). Therefore, the best available data indicates that low-income pockets exist relative to the service area. The Final EIS therefore included a statement that the data indicates that low-income pockets may exist relative to the service area. EPA recommends that if data becomes available to determine whether these low-income pockets will be affected by the proposed project or alternatives, it should be included with the FEIS.

➤ EPA previously commented that we concurred with the Corps of Engineers' EJ Analysis that there are several types of potential adverse impacts that a water reclamation facility (WRF) and associated pump station and pipelines "could have on an affected community if certain siting, design, and operational requirements are not implemented." EPA previously expressed concerns about construction traffic, odor control, potential property devaluation, and ongoing community participation in decisions made regarding the development of the affected EJ community. The FEIS states that "decisions regarding the development of the affected EJ community will be made according to Wake County ordinances until the area is annexed by the Town of Apex." EPA recommends that if the Town of Apex has definitive plans to annex the affected EJ community, this information should be provided to the residents that own parcels that are targeted for annexation, and they should be provided a general time frame of when this may occur. At this time, all that the FEIS states is that the New Hill area will be annexed by the Town of Apex "in the future" as it is within Apex's long range urban service area (LRUSA). The FEIS defines LRUSAs as areas into which municipalities are expected to extend services within approximately 20 years.

➤ EPA previously concurred with the DEIS that "the community in the vicinity of the project facilities could be adversely impacted by property devaluation due to the Project". As stated in our DEIS comments, EPA believes the information in the EJ analysis on property values in Wake County related to their proximity to wastewater treatment facilities is of limited value, because a comparison of individual home values (based on resale and/or assessed value) prior to and after wastewater treatment facility construction was not conducted. The FEIS states the characteristics of the site (more than 200 acres) and the positive impacts of the water and sewer policy should mitigate any potential negative impacts to property values in the historical EJ community. Nevertheless, EPA continues to have concerns that construction of the large WRF at Site 14 could adversely impact property values in the area of the historical EJ community. EPA therefore strongly supports the Partners' proposal to retain a 200-foot mostly-forested perimeter buffer around the WWRWRF "to ensure that there will always be a 200-foot separation between the facilities and its neighbors." The long term integrity of the buffer should be ensured via deed restrictions or other means to avoid incompatible land uses. EPA also strongly supports the Partners' proposal to install "state-of-the art design features and odor control technology at the WRF site."

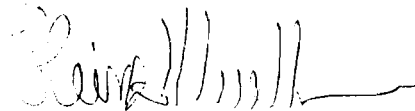
➤ The FEIS states that “in addition to the design features that will minimize the impacts of the project, the Partners have proposed a Water and Sewer Extension Policy based on feedback from the affected community received during public outreach efforts.” EPA supports “free or deferred-fee” water and sewer connections to properties between New Hill-Holleman Road and Shearon Harris Rd in the census block including all of EJ Group 1.

➤ EPA previously commented that the January 1, 2010 date for property owner acceptance of the water and sewer service should be extended. The FEIS states that the Partners were waiting for the public comment period to update the Site 14 Water and Sewer Extension Policy and have now addressed the comments concerning dates in an updated policy. The updated policy was reportedly approved by the Partners’ Policy Advisory Committee (PAC) on July 14, 2009 and approved by the Town of Apex Board on August 4, 2009. EPA recommends that before any permit is granted for the project as proposed, the Corps of Engineers should condition the permit to assure the Partners’ Water and Sewer Extension Policy is acceptable to the property owners in the EJ community. EPA recommends that all proffers/promises by the Partners (200-foot forested perimeter buffer, state-of-the art design features and odor control technology, free or deferred-fee water and sewer connections, on-going outreach efforts, special lighting, work zone traffic/delivery schedules, etc.) to the New Hill Community be formally incorporated into the Record of Decision (ROD).

➤ EPA previously commented that the proposed site has several documented advantages. Despite these advantages, EPA does have remaining concerns about impacts to wetlands. Therefore EPA recommends that detailed wetland delineations be required for each 404 permit request in order to refine actual impacts to wetlands and streams. These detailed delineations should be utilized in developing mitigation requirements which includes avoidance, minimization and mitigation for unavoidable wetland and stream impacts as required by Clean Water Act Section 404(b)(1) Guidelines.

Thank you for the opportunity to comment on the FEIS. If we can be of further assistance, please do not hesitate to contact me at (404) 562-9611 or mueller.heinz@epa.gov or my staff engineer, Paul Gagliano, P.E. at (404) 562-9373 or gagliano.paul@epa.gov.

Sincerely,



Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management